



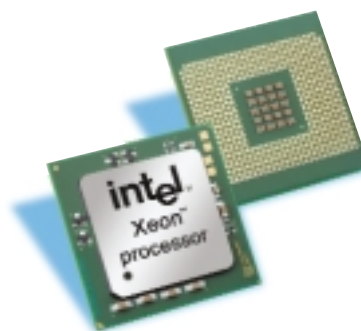
Intel® Xeon™ Processor with 512 KB L2 Cache and Low Voltage Intel® Xeon™ Processor for Applied Computing

Product Overview

The Intel® Xeon™ processor with 512 KB L2 cache and Low Voltage Intel® Xeon™ processor are ideal solutions for applications in the communications market segment that require the highest levels of processing performance. The Low Voltage Intel Xeon processor has the additional benefit of low thermal design power, making it ideal for thermally-sensitive, space-constrained environments. A 512 KB L2 Advanced Transfer Cache, along with the Intel® E7500 and Intel® E7501 chipsets for high memory bandwidth, high memory capacity, and high I/O bandwidth, create a balanced platform designed to deliver unparalleled price-performance, scalability and flexibility. Intel Xeon processor and Low Voltage Intel Xeon processor-based products demonstrate compelling value in specific applications like Web-serving, storage (NAS, SAN), search engines, telecommunications servers, network management, security, voice, and load balancing.

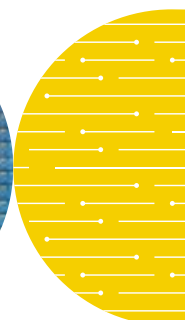
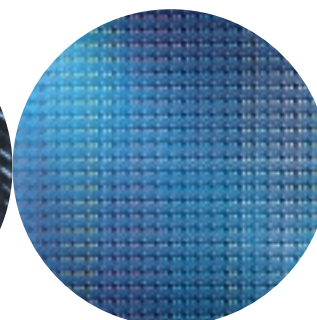
Product Highlights

- Intel® NetBurst™ microarchitecture delivers new levels of performance and throughput



- Hyper-Threading Technology enables a single physical processor to execute two separate code streams (called threads) simultaneously
- Intel Xeon processor available at 2 GHz and 2.4 GHz
- Low Voltage Intel Xeon processor available at 1.6 GHz
- Validated with the Intel E7500 chipset or Intel E7501 chipset
- Level 2 Advance Transfer Cache (512 KB) tightly synchronized with the L1 cache and rapid execution engine, improving access times for data
- Level 1 Execution Trace Cache improves throughput and reduces latency
- Rapid Execution Engine provides 2x clock speed for integer computations

Intel in
Communications



- Internet Streaming SIMD Extensions 2 (SSE2) with 144 new instructions
- Extended life cycle support

Intel® NetBurst™ Microarchitecture

The foundation for the Intel® Xeon™ processor and the Low Voltage Intel® Xeon™ processor

Intel NetBurst microarchitecture offers several innovations that allow the Intel Xeon and Low Voltage Intel Xeon processors to deliver best-in-class performance in dual-processor configurations. This microarchitecture features higher clock speeds, a 400 MHz or 533 MHz system bus, a Rapid Execution Engine, and an Execution Trace Cache. These features are incorporated specifically to increase performance and throughput on current applications and build headroom to meet current and future performance needs as your business and workloads grow. Specific microarchitecture benefits include:

- Higher clock speeds with future headroom: faster raw execution provides higher transaction rates and faster response times
- Rapid Execution Engine: 2x clock speed for Arithmetic Logic Units (ALU) operations give increased performance to compute servers
- Trace Cache: Improves performance by removing decoder latency, and speeds instruction throughput

Hyper-Threading Technology

Immediate Performance Benefits for Applied Computing Applications

Going beyond GHz (processor core frequency), Intel is changing the landscape of processor design and performance by including simultaneous multi-threading on a processor. Intel's ground-breaking Hyper-Threading Technology, a new on-processor innovation, allows multi-processing applications to execute more than one thread per processor, increasing the throughput of applications and enabling processing to scale to handle future workload requirements.

Intel® Xeon™ Processor with 512 KB L2 Cache

Product Number	Core Speed (GHz)	External Bus Speed (MHz)	L2 Cache	Thermal Design Power	Voltage	Tcase	Package
RN80532KC041512	2.0	400	512K	58.0W	1.5V	70°C	603-pin INT3
RK80532KE056512	2.4	533	512K	65.0W	1.5V	74°C	604-pin FC-mPGA-2p

Low Voltage Intel® Xeon™ Processor

Product Number	Core Speed (GHz)	External Bus Speed (MHz)	L2 Cache	Thermal Design Power	Voltage	Tcase	Package
RK80532EC025512	1.6	400	512K	30.0W	1.3V	81°C	604-pin FC-mPGA-2p

Intel Access

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